

WHAT IS CLAIMED IS:

1. An isolated and purified polynucleotide that encodes a peroxisome proliferator-activated receptor polypeptide.
2. The isolated and purified polynucleotide of Claim 1, wherein said polynucleotide is a DNA molecule.
3. The DNA molecule of Claim 2, wherein said encoded polypeptide is a peroxisome proliferator-activated receptor *gamma*.
4. The DNA molecule of Claim 2, wherein said encoded polypeptide comprises the amino acid residue sequence of SEQ ID NO:2.
5. The isolated and purified polynucleotide of Claim 1, wherein said polynucleotide comprises the nucleotide base sequence of SEQ ID NO:1.
6. An isolated and purified polynucleotide that encodes a peroxisome proliferator-activated receptor polypeptide, said polynucleotide preparable by a process comprising the steps of:
 - (a) constructing a library of cDNA clones from a cell that expresses said polypeptide;
 - (b) screening the library with a radio-labelled oligonucleotide probe;
 - (c) identifying a clone that hybridizes to the probe; and
 - (d) isolating the hybridized clone from the library of unhybridized clones.

7. The isolated and purified polynucleotide of Claim 6, wherein said polynucleotide is prepared by a process comprising the steps of:

- 5 (a) constructing a library of cDNA clones from a cell that expresses said polypeptide;
- (b) screening the library with a radio-labelled oligonucleotide probe;
- (c) identifying a clone that hybridizes to the probe; and
- 10 (d) isolating the hybridized clone from the library of unhybridized clones.

8. An isolated and purified polynucleotide comprising a base sequence that is identical or complementary to a segment of at least 10 contiguous bases of SEQ ID NO: 1, wherein said polynucleotide hybridizes to a polynucleotide that encodes a peroxisome proliferator-activated receptor polypeptide.

15 9. An isolated and purified peroxisome proliferator-activated receptor polypeptide.

20 10. The receptor polypeptide of Claim 9, wherein the polypeptide is a peroxisome proliferator-activated receptor *gamma* polypeptide.

11. The peroxisome proliferator-activated receptor polypeptide of Claim 9 that comprises the amino acid residue sequence of SEQ ID NO:2.

25 12. An expression vector comprising a polynucleotide that encodes a peroxisome proliferator-activated receptor polypeptide.

13. The expression vector of Claim 12, wherein the polynucleotide comprises the nucleotide base sequence of SEQ ID NO:1.

14. A recombinant host cell transfected with a polynucleotide that encodes a peroxisome proliferator-activated receptor polypeptide.

5 15. The recombinant host cell of Claim 14, wherein the cell is transfected with the polynucleotide of SEQ ID NO:1.

16. A process of preparing a peroxisome proliferator-activated receptor polypeptide comprising:

10 (a) transfecting a cell with a polynucleotide that encodes the polypeptide to produce a transformed host cell; and
(b) maintaining the transformed host cell under biological conditions sufficient for expression of the polypeptide.

17. The process of Claim 16 wherein said polynucleotide comprises the nucleotide base sequence of SEQ ID NO:1.

15 18. An antibody immunoreactive with a peroxisome proliferator-activated receptor polypeptide.

19. The antibody of Claim 18, wherein said antibody is a polyclonal or a monoclonal antibody.

20 20. A process of detecting a peroxisome proliferator-activated receptor polypeptide, wherein the process comprises:

(a) immunoreacting the polypeptide with the antibody of Claim 18 to form an antibody-polypeptide conjugate; and
(b) detecting the conjugate.

21. A process of detecting a messenger RNA transcript that encodes a peroxisome proliferator-activated receptor polypeptide, wherein the process comprises:

5 (a) hybridizing the messenger RNA transcript with a polynucleotide sequence that encodes the peroxisome proliferator-activated receptor polypeptide to form a duplex; and
(b) detecting the duplex.

10 22. A pharmaceutical composition comprising a peroxisome proliferator-activated receptor polypeptide and a physiologically acceptable carrier.

15 23. A diagnostic assay kit for detecting the presence of a peroxisome proliferator-activated receptor polypeptide in a biological sample, said kit comprising a first container containing a first antibody capable of immunoreacting with said peroxisome proliferator-activated receptor polypeptide, wherein said first antibody is present in an amount sufficient to perform at least one assay.

20 24. A diagnostic assay kit for detecting the presence, in a biological sample, of a first polynucleotide that encodes a peroxisome proliferator-activated receptor polypeptide, said kit comprising a first container that contains a second polynucleotide identical or
25 complementary to a segment of at least 10 contiguous nucleotide bases of SEQ ID NO: 1.

25. A process of screening a substance for its ability to interact with a peroxisome proliferator-activated receptor, said process comprising the steps of:

- a) providing a peroxisome proliferator-activated receptor polypeptide;
- b) testing the ability of said substance to interact with said peroxisome proliferator-activated receptor polypeptide.

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